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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/733,162	12/11/2003	Bruce Michael Siebers	KCX-651 (18385)	5959

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EXAMINER
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COLE, ELIZABETH M

ART UNIT	PAPER NUMBER
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1771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/01/2007	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

# Office Action Summary

Application No.

10/733,162

Applicant(s)

SIEBERS ET AL.

Examiner

Elizabeth M. Cole

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-64 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-64 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_.

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1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/22/06 has been entered.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5, 8-15, 18-19, 26-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0066463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854. EP '463 discloses a cleaning sheet comprising a plurality of plies of cellulosic material. An interlayer of an impermeable film can be placed between the cellulosic plies. See page 4, lines 32-34; page 5, lines 22-32. The layers can be joined by adhesive or thermal bonding. See page 8, lines 1-19. The plies of cellulosic material comprise a plurality of perforations. The perforations have a size of 0.01-1.2 mm. The perforations are distributed at a rate of 0.5-5 perforations per square centimeter. See page 9, lines 1-13. The apertures can extend through less than the entire thickness of the cleaning sheet. See page 6, lines 9-12. The perforations can extend from one or both sides of the cleaning sheet. See page 8,

lines 28-32. One side of the cleaning sheet can comprise a plurality of abrasive structures such as fibers which are bonded to one of the cellulosic plies. Suitable materials for the abrasive fibers include polystyrene, polymethyl methacrylate and polyvinyl chloride. See page 10, lines 15-26. The cleaning sheet may be impregnated with various additives such as soap, detergent, disinfectants, skin treatments, etc. See page 3, lines 11-16. The size and depth of the perforations can be controlled to allow for a metered release of the added components. See page 3, lines 17-23. With regard to the new limitation that the cellulosic layers are adjacent each other, adjacent means either "close to, being near" or "next to, adjoining", (see dictionary.com). The cellulosic plies in EP '463 are close to and near each other and they further are next to each other and are adjoining each other in that a grid of adhesive material can bond to the two layers together. The claims employ open claim language and therefore do not preclude the presence of additional components. Further, the active ingredients may be in the form of a powder which is coated on substrate cellulosic plies. The plies are then bonded to each other. Therefore the plies would be adjacent to each other.

4. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which

enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet.

5. Claims 1-64 are rejected under 35 U.S.C. 103(a) as being unpatentable over EP 0066463 in view of Srinivasan et al; U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854 as set forth above, and further in view of EP 1212974. EP '463 discloses a cleaning sheet comprising a plurality of plies of cellulosic material. An interlayer of an impermeable film can be placed between the cellulosic plies. See page 4, lines 32-34; page 5, lines 22-32. The layers can be joined by adhesive or thermal bonding. See page 8, lines 1-19. The plies of cellulosic material comprise a plurality of perforations. The perforations have a size of 0.01-1.2 mm. The perforations are distributed at a rate of 0.5-5 perforations per square centimeter. See page 9, lines 1-13. The apertures can extend through less than the entire thickness of the cleaning sheet. See page 6, lines 9-12. The perforations can extend from one or both sides of the cleaning sheet. See page 8, lines 28-32. One side of the cleaning sheet can comprise a plurality of abrasive structures such as fibers which are bonded to one of the cellulosic plies. Suitable materials for the abrasive fibers include polystyrene, polymethyl methacrylate and polyvinyl chloride. See page 10, lines 15-26. The cleaning sheet may be impregnated with various additives such as soap, detergent, disinfectants, skin

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treatments, etc. See page 3, lines 11-16. The size and depth of the perforations can be controlled to allow for a metered release of the added components. See page 3, lines 17-23. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet.

6. While EP '463 teaches that the depth of the perforations can be controlled in order to allow for controlled release of the additive composition, EP '463 does not specifically teach that the perforations should extend less than about 50% of the thickness of the cleaning sheet. However, since EP '463 does teach that the size, depth and distribution of the perforations is related to the controlled release of the active agents which are added to the cleaning sheet, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the

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particular depth of the perforations through the process of routine experimentation in order to arrive at a product which release the desired amount of additive.

7. EP '463 differs from the claimed invention because EP '463 does not teach the particularly claimed number of cellulosic plies, does not teach that the abrasive structures comprise meltblown webs and does not teach how the cellulosic plies are formed. With regard to the number of plies, since the cellulosic plies are provided in order to provide softness and absorbency to the cleaning sheet, ( page 5, lines 1-3; lines 22-32), it would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the appropriate number of plies through the process of routine experimentation in order to arrive at a cleaning sheeting having the optimum absorbency and softness.

8. With regard to the abrasive structure, EP '463 does not teach that the abrasive structures comprise meltblown webs, does not teach the particular types of nonwovens which make up the cellulosic plies and does not teach bonding by stitching, but instead teaches adhesive or heat bonding.

9. EP '974 teaches that cleaning sheets which comprise a plurality of nonwoven layers can comprise meltblown webs, coforms, spunbondeds, carded web, as well as air laid and wet laid webs. Cellulosic layers can be used as the cleaning layers, while synthetic polymers can form the scrubbing layers. See paragraphs 0011 – 0026.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed the particular types of nonwovens for the

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abrasive layer and the cellulosic layers of EP '463, motivated by the teaching of EP '974 that such materials were recognized in the art as suitable for this purpose.

10. With regard to stitching, EP '463 teaches heat and/or adhesive bonding to unite the layers. EP '974 teaches that besides heat and adhesive bonding that stitching can also be used to bond the layers of the cleaning sheet together. See paragraph 0026.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed stitching rather than adhesive or thermal bonding to join the layers of the cleaning sheet of EP '463, motivated by the teaching of EP '974 that stitching was an art recognized equivalent means of joining layers.

11. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

12. Claims 1-64 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-50 of copending Application No. 10/745,327 in view of EP 066463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854. '327 discloses a wiping product comprising a plurality of plies wherein some of the plies comprise



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cellulosic pulp fibers. '327 differs from the claimed invention because it does not teach perforating the plies. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc.,. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '327, motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet

This is a provisional obviousness-type double patenting rejection.

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13. Claims 1-64 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-91 of copending Application No. 10/733,169 in view of EP 066463 . in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854 US '169 discloses a scrubbing product comprising a plurality of plies some of which have abrasive properties. US '199 327 differs from the claimed invention because it does not teach perforating the plies. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '169, motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was

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conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet

This is a provisional obviousness-type double patenting rejection.

14. Claims 1-64 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-131 of copending Application No. 10/321,831 in view of EP 066,463 . in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854 US '831 discloses a cleaning sheet comprising a plurality of plies including an abrasive layer and cellulosic layers. US '831 differs from the claimed invention because it does not disclose perforating the plies. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '831 motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which

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enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet

This is a provisional obviousness-type double patenting rejection.

15. Claims 1-64 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-220 of copending Application No. 10/322,277 in view of EP 066,463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854 . US '277 discloses a scrubbing product comprising an abrasive layer and an absorbent layer wherein the absorbent layer can be a cellulosic web. US '277 differs from the claimed invention because it does not teach perforating the layers. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '277 motivated by the expectation that this would allow the controlled release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce

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perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet

This is a provisional obviousness-type double patenting rejection.

16. Claims 1-64 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-132 of copending Application No. 10/036,736 in view of EP 066,463 in view of Srinivasan et al, U.S Patent NO. 6,025,050 and Currie et al, U.S. Patent No. 5,429,854. US '736 discloses an absorbent material comprising a plurality of plies of tissue paper. US '736 differs from the claimed invention because US '736 does not disclose perforating the layers. EP '463 teaches that perforating the plies of a wiping sheet allows for the controlled release of additives such as detergents, etc. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have perforated the layers of US '736, motivated by the expectation that this would allow the controlled

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release of additives such as detergents, etc., which are added to the wiping sheet. EP '463 differs from the claimed invention because while EP '463 teaches employing pins to form the perforations, (see page 8, lines 20-32), it does not teach that the pins are heated, which would produce perforations which enhance the structural integrity of the layered material. Srinivasan teaches at col. 1, lines 30-35, that it is conventional to form apertured nonwoven fabrics by aperturing using hot pin perforation. Currie et al teaches that it is particularly advantageous to employ hot pins to form perforations in cleaning sheets because the hot pins produce perforations which enhance the scrubbing ability of the sheet. See abstract and col. 2, lines 62-68. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have employed hot pins as the pins which formed the perforations in EP '463, motivated by the teaching of the prior art that it was conventional to use hot pins and that the use of hot pins improved the cleaning ability of the sheet

This is a provisional obviousness-type double patenting rejection.

17. Applicant's argument that EP '463 does not teach forming the apertures so that they contribute to the structural integrity of the sheet is persuasive, however that argument is moot in view of the new grounds of rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elizabeth M. Cole whose telephone number is (571) 272-1475. The examiner may be reached between 6:30 AM and 6:00 PM Monday through Wednesday, and 6:30 AM and 2 PM on Thursday.

Mr. Terrel Morris, the examiner's supervisor, may be reached at (571) 272-1478.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

The fax number for all official faxes is (571) 273-8300.

A handwritten signature in black ink, appearing to read 'Elizabeth M. Cole', is positioned above the printed name.

Elizabeth M. Cole  
Primary Examiner  
Art Unit 1771

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